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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Juha-Pekka Koskinen

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EXAMINER

NGUYEN, TUAN HOANG

ART UNIT

PAPER NUMBER

2618

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,712	Applicant(s) KOSKINEN ET AL.	
	Examiner TUAN H. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,26,27 and 29-54 is/are pending in the application.
- 4a) Of the above claim(s) 13-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12,26,27 and 29-54 is/are rejected.
- 7) ☒ Claim(s) 2 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see applicant's remarks, filed on 09/09/2009, with respect to the rejection(s) of claims 1-12 and 26-54 under 35 U.S.C § 103(a) have been fully considered and are not persuasive.

In response to Applicant's remark on page 14, Applicant argues that Cobo et al. (U.S PAT. 6,496,690 hereinafter "Cobo") reference cited by the Examiner does not teach or suggest "establishing an accounting session between an accounting server and at least one accounting client. The cited portion of Cobo merely teaches establishing a data session between a mobile terminal and terminal equipment, neither of which comprises an accounting server. Moreover, even if the Examiner were to regard the SGSN and PPC taught by Cobo to comprise an accounting client and an accounting server, Cobo does not teach or suggest establishing an accounting session between the SGSN and PPC...". Examiner respectfully disagrees with the Applicant argument. Applicant should refer to Cobo's reference, col. 2, lines 17-33 where as the Examiner interpreted "establishing an accounting session between an accounting server (SGSN) and at least one accounting client (PPC)" e.g., When the subscriber begins a data session, **the SGSN periodically sends partial call data records** (CDRs) during the data session **to a prepaid center** (PPC) (read on "establishing an accounting session between an accounting server and at least one accounting client"). The partial CDRs may cover charges for radio network usage. A Gateway GPRS Service Node

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(GGSN) may send partial CDRs covering data network usage. This is followed by calculating in the PPC in near real time, a new account balance for the subscriber, and ending the data session when the account balance is reduced to zero. Additionally, the Applicant argues that “Cobo does not teach or suggest allocating an accounting session identifier to the accounting session based on a received request to establish an accounting session”. Examiner respectfully disagrees with the Applicant argument. Applicant should refer to Cobo’s reference, col. 2, lines 17-33 where as the Examiner interpreted “allocating an accounting session identifier to the accounting session based on a received request to establish an accounting session” i.e., at step 33, an Attach Request is sent from the mobile terminal 15 to the New SGSN 12. Then at 34, the network performs identification and authentication procedures. At 35, the New SGSN sends an Update Location message 35 to the HLR 16. The HLR then sends at 36, a Cancel Location message to the Old SGSN. The Old SGSN returns a Cancel Location Acknowledgment 37. The HLR then sends an Insert Subscriber Data message 38 to the New SGSN and includes the Prepaid Subscriber Class (PPSC) 40. The New SGSN returns an Insert Subscriber Data Acknowledgment 39 to the HLR. The HLR then sends an Update Location Acknowledgment 41 to the New SGSN. Finally, Applicant argues that Campbell (U.S PAT. 6,453,029) reference cited by the Examiner teaches away from the feature of “collating charging update data in the accounting server based on the accounting session identifier and the charging update data at the accounting server received from the at least one accounting client during the call”. Examiner respectfully disagrees with the Applicant argument. Applicant should refer to Campbell’s reference

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figs. 1 and 2, col. 4 line 58 through col. 5 line 21 and col. 6 lines 33-47 where as the Examiner interpreted “collating charging update data in the accounting server based on the accounting session identifier and the charging update data at the accounting server received from the at least one accounting client during the call” i.e., In step 203 call processor 105 queries server 101 whether a valid prepaid account was identified in step 202 (read on “accounting session identifier”). Call processor 105 provides an account identifier to server 101 which then determines whether such an account is active on system 10. System 10 may provide for validating accounts by providing a list of assigned account numbers on each server 101-104. For example, the list could be updated every time a new prepaid account was opened or a new calling card was issued. The purpose of the valid account list is merely to verify that the caller actually has an account before call processor 105 begins to route the call. The list of valid account numbers or calling card numbers would not have to contain information such as the current prepaid balance. Therefore, the teaching of the prior art reference still read on.

Base on the above rational, it is believed that the claimed limitations are met by the references submitted and therefore, the rejection maintained.

2. Claims 13-25 cancelled.

Claim Objections

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3. Claims 53 and 54 are objected to because of the following informalities: there are NO further limitation(s) claimed in claims 53 and 54. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 43, 46, 53, and 54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 43 and 46 disclosed “**a computer-readable storage medium encoded with instructions configured to control a processor to perform a process**, the process comprising ...”.

Claims 53 and 54 disclosed “an apparatus ..., further comprising at least one **memory storing computer program code**, wherein the processor is configured, with the at least one **memory and stored computer program code**, to cause the apparatus to at least...”.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-5, 10-12, 26-27, 29-30, 35-37, 42-47, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippelt (US PUB. 2005/0136890) in view of Cobo et al. (U.S PAT. 6,496,690 hereinafter "Cobo") and further in view of Campbell (U.S PAT. 6,453,029).

Consider claims 1, 26, 27, and 43-47, Lippelt teaches a request to establish the call between a first terminal and a second terminal, are to be charged against the prepaid credit (page 1 [0007] and page 2 [0015]).

Lippelt does not explicitly show that establishing the accounting session and allocating an accounting session identifier to the accounting session based on receiving a request to establish an accounting session between an accounting server and at least one accounting client that will generate costs to be charged against prepaid credit during a call after ascertaining whether any costs generated by the at least one accounting client in a network.

In the same field of endeavor, Cobo teaches 1 credit during a call after ascertaining whether any costs generated by the at least one accounting client in a network (figs. 2 and 3, col. 6 lines 31-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, establishing the accounting session and allocating an accounting session identifier to the accounting session based on receiving a request to establish an accounting session between an accounting server and at least one accounting client that will generate costs to be charged against prepaid credit during a call after ascertaining whether any costs generated by the at least one accounting client in a network, as taught by Cobo, in order to provide a prepaid subscriber service to a mobile subscriber in a wireless packet-switched telecommunications network.

Lippelt and Cobo, in combination, fail to teach collating the-charging update data in the accounting server based on the accounting session identifier and the charging update data at the accounting server received from the at least one accounting client during the call established between the first and second terminals, to enable updating of the prepaid credit during the call, wherein the charging update data received during the call includes the accounting session identifier and tariff update data.

However, Campbell teaches collating the-charging update data in the accounting server based on the accounting session identifier (col. 6 lines 33-47) and the charging update data at the accounting server received from the at least one accounting client during the call established between the first and second terminals (col. 4 line 58 through col. 5 line 21), to enable updating of the prepaid credit during the call, wherein the

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charging update data received during the call includes the accounting session identifier and tariff update data (col. 4 line 58 through col. 5 line 21).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Campbell into view of Lippelt and Cobo, in order to provide database servers and call processors are distributed to a number of remote locations. Instead of routing all of the users through a central system, in the present invention the prepaid callers are serviced by local call processors that are coupled to the remote servers. The use of local call processors at the remote locations reduces the call volume that is handled by each call processor and server. As a result, the demand levels on each call processor and server are reduced. Thus, the present system works faster and more efficiently.

Consider claims 3 and 36, Lippelt further teaches the accounting server is located in the home network of the first terminal (page 1 [0012]).

Consider claims 4 and 29, Cobo further teaches each accounting client takes the form of one of the following network entities: service general packet radio service support node/ gateway general packet radio service support node; service call service control function/ proxy call service control function; and a network application server (col. 4 line 65 through col. 5 line 12).

Consider claims 5, 30, 37, and 50, Lippelt further teaches the accounting session identifier is allocated upon receipt in the network of the request for establishment of a call from the first terminal (page 6 [0058]).

Consider claims 10, 35, and 42, Lippelt further teaches in response to receiving a request for ascertaining whether costs are to be charged against prepaid credit the method further comprises looking up subscriber profile data upon receipt of the request for establishment of the call (page 3 [0028]).

Consider claim 11, Lippelt further teaches the network is an internet protocol network (page 5 [0056]).

Consider claim 12, Lippelt further teaches the network is a universal mobile telecommunications system network (page 5 [0048]).

Consider claim 48, Lippelt further teaches in response to receiving the request for ascertaining, transmitting a response including an indication that costs generated by accounting clients in a network associated with a request for establishing a call between a first and second terminal are to be charged against prepaid credit (page 1 [0007] and page 2 [0015]).

Consider claim 49, Lippelt further teaches the apparatus comprises a transmitter configured to transmit a response including an indication that costs generated by accounting clients in a network associated with a request for establishing a call between a first and second terminal are to be charged against prepaid credit in response to the request for ascertaining (page 1 [0007]).

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8. Claims 6-9, 31-34, 38-41, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippelt in view of Cobo and Campbell and further in view of Chaney (U.S PAT. 6,947,724).

Consider claims 6, 31, and 38, Lippelt, Cobo and Campbell, in combination fails to teach the request for establishment of a call is made via a session initiation protocol message sent from the first terminal.

However, Chaney teaches the request for establishment of a call is made via a session initiation protocol message sent from the first terminal (col. 1 lines 16-39).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Chaney into view of Lippelt, Cobo and Campbell, in order to provide billing a call placed by a user based on a reported traffic load in the network.

Consider claims 7, 32, 39, and 52, Chaney further teaches the charging update data is sent from the accounting clients to the accounting server via a diameter protocol message (col. 8 lines 1-6).

Consider claims 8, 33, and 40 Chaney further teaches the charging update data is received from each accounting client to the accounting server in response to a diameter protocol update request issued by the accounting server (see fig. 5 col. 8 lines 7-14).

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Consider claims 9, 34, 41, and 51, Chaney further teaches the accounting server issues the update requests to each accounting client periodically (col. 8 lines 43-53).

Allowable Subject Matter

9. Claims 2 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272- 7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan H. Nguyen/
Examiner
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